



DATA SHEET

DI100S~DI1010S

SURFACE MOUNT GLASS PASSIVATED SINGLE-PHASE BRIDGE RECTIFIER

VOLTAGE 50 to 1000 Volts CURRENT - 1.0 Ampere



Recognized File #E111753

FEATURES

- Plastic material used carries Underwriters Laboratory recognition 94V-O.
- Low leakage
- Surge overload rating-- 30 amperes peak.
- Ideal for printed circuit board.
- Exceeds environmental standards of MIL-S-19500/228

MECHANICAL DATA

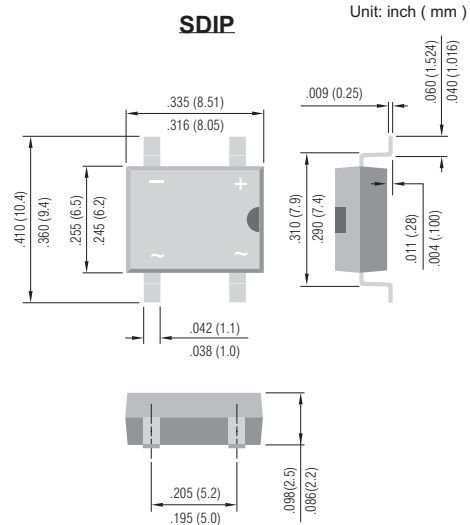
Case: Reliable low cost construction utilizing molded plastic technique results in inexpensive product.

Terminals: Lead solderable per MIL-STD-202, Method 208.

Polarity: Polarity symbols molded or marking on body.

Mounting Position: Any.

Weight: 0.02 ounce, 0.40 gram.



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, Resistive or inductive load.

For capacitive load, derate current by 20%

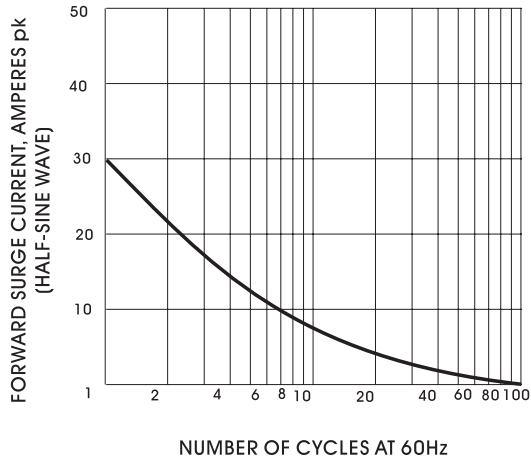
	DI100S	DI101S	DI102S	DI104S	DI106S	DI108S	DI1010S	UNITS
Maximum Recurrent Peak Reverse Voltage	50	100	200	400	600	800	1000	V
Maximum RMS Bridge input Voltage	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	50	100	200	400	600	800	1000	V
Maximum Average Forward Current $T_A=40^\circ\text{C}$	1.0							A
Peak Forward Surge Current, 8.3ms singlehalf sine-wave superimposed on rated load	30.0							A
I^2t Rating for fusing ($t < 8.35$ ms)	3.735							A^2t
Maximum Forward Voltage Drop per Bridge Element at 1.0A	1.1							V
Maximum Reverse Current at Rated $T_J=25^\circ\text{C}$	5.0							μA
DC Blocking Voltage per element $T_J=125^\circ\text{C}$	0.5							mA
Typical Junction capacitance per leg (Note 1) CJ	25.0							pF
Typical Thermal resistance per leg (Note 2) R θ JA	40.0							$^\circ\text{C}/\text{W}$
Typical Thermal resistance per leg (Note 2) R θ JL	15.0							
Operating Temperature Range T_J	-55 to 125							$^\circ\text{C}$
Storage Temperature Range T_A	-55 to 150							$^\circ\text{C}$

NOTES:

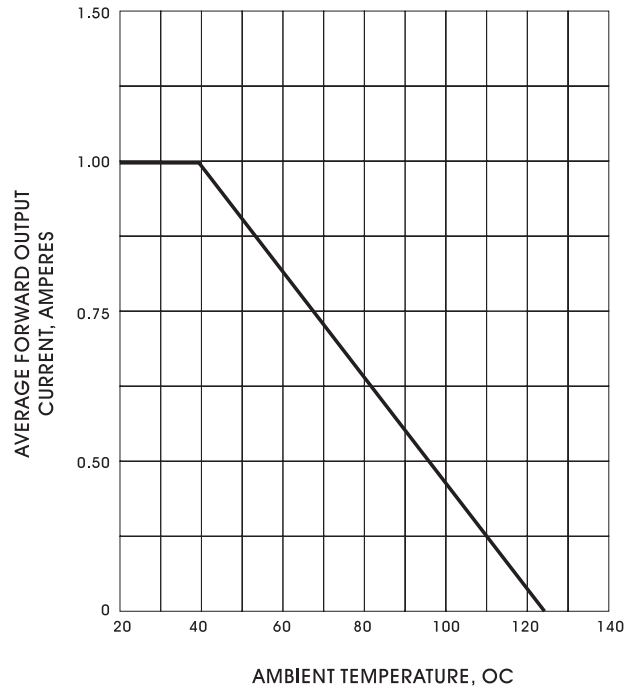
1. Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts.
2. Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.5 X 0.5" (13 X 13mm) copper pads.



RATING AND CHARACTERISTIC CURVES



NUMBER OF CYCLES AT 60Hz
Fig. 1-MAXIMUM NON-REPETITIVE SURGE CURRENT



AMBIENT TEMPERATURE, °C
Fig. 2-DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

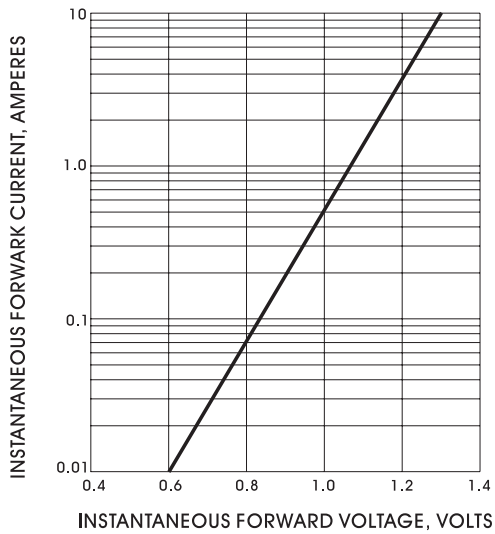


Fig. 3-TYPICAL FORWARD CHARACTERISTICS

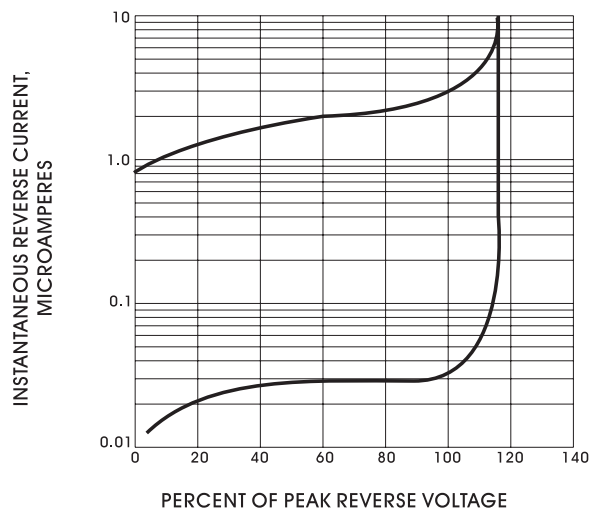


Fig. 4-TYPICAL REVERSE CHARACTERISTICS